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Docket No.: 600.1243
Date: January 31, 2007

In re application of: Bertold GRUETZMACHER et al.
Serial No.: 10/655,928
Filed: 09/05/2003
For: PRINT SUBSTRATE-CONTACTING ELEMENT HAVING AN INK-REPELLENT COATING AND METHOD FOR COATING A PRINT SUBSTRATE-CONTACTING ELEMENT

Sir:

Transmitted herewith is a **Appellants' Brief under 37 C.F.R. §41.37 (10 pgs)** in the above-identified application.

☒ Also transmitted herewith are:
- ☒ Return Receipt Postcard
- ☐ Petition for extension under 37 C.F.R. 1.136
- ☐ Other:

☐ Check(s) in the amount of **$0.00**is/are attached to cover:
- ☐ Filing fee for additional claims under 37 C.F.R. 1.16
- ☐ Petition fee for extension under 37 C.F.R. 1.136
- ☐ Other:
- ☐ Other:

☒ The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.

- ☒ Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.
- ☒ Any patent application processing fees under 37 C.F.R. 1.17.
- ☒ Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.

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I hereby certify that the documents referred to as attached therein and/or fee are being deposited with the United States Postal Service as "first class mail" with sufficient postage in an envelope addressed to "Mail Stop: APPEAL BRIEF - PATENTS Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on January 31, 2007.

DAVIDSON, DAVIDSON & KAPPEL, LLC

BY: Danielle Sullivan
Danielle Sullivan

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re:	Application of:	Bertold GRUETZMACHER et al.	
	Serial No.:	10/655,928	Confirmation No.: 8625
	Filed:	09/05/2003	
	For:	PRINT SUBSTRATE-CONTACTING ELEMENT HAVING AN INK-REPELLENT COATING AND METHOD FOR COATING A PRINT SUBSTRATE-CONTACTING ELEMENT	
	Art Unit:	2854	
	Examiner:	Kevin D. Williams	
	Customer No.:	23280	
	Atty. Docket:	600.1243	

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

January 31, 2007

APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37

Sir:

Appellants submit this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Non-Final Rejection dated August 31, 2006 in this application. The statutory fee of $500.00 was paid with a previously filed appeal brief dated May 30, 2006, and is applied to this appeal, therefore no fee is concurrently herewith.

1. REAL PARTY IN INTEREST

The real party in interest is Heidelberger Druckmaschinen AG, a German corporation having a place of business in Heidelberg, Germany, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Heidelberger Druckmaschinen AG by assignment by inventors Gruetzmacher, Gutfleisch, Hauptmann, and Peiter. The assignment was recorded on December 22, 2003 at reel 014832, frame 0175.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal, interference or judicial proceeding that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 9 are pending. Claims 10 to 17 have been canceled. Claims 1 to 9 have been rejected as per the Non-Final Office Action dated August 31, 2006.

The rejection to claims 1 to 9 thus is appealed. A copy of appealed claims 1 to 9 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS

No amendments to claims were filed after the non-final rejection. A Notice of Appeal was filed on November 30, 2006 and received by the U.S.P.T.O. on December 4, 2006.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a print substrate-contacting element (e.g., 20 in Fig. 2, e.g., specification page 10, lines 9 to 12) comprising: a microstructured carrier (e.g., 32 in Fig. 2, e.g., specification page 10, lines 12 to 14) having a surface (e.g., specification page 9, lines 28 to 31); and an ink-repellent coating (e.g., 30 in Fig. 2, e.g., specification page 10, lines 12 to 14) on the surface (e.g., specification page 8, lines 25 to 27, e.g., specification page 9, lines 28 to 31) of the microstructured carrier (e.g., 32 in Fig. 2, e.g., specification page 10, lines 12 to 14), the ink-repellent coating (e.g., 30 in Fig. 2, e.g., specification page 10, lines 12 to 14) including a derivative of an amphiphilic organic compound having a polar region with an acidic character (e.g., specification page 8, lines 2 to 5).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether claims 1 to 3 should be rejected under 35 U.S.C. § 102(b) as being anticipated by Gross (US 6,649,266). Whether claims 1 to 4 and 7 to 9 should be rejected under 35 U.S.C. § 103(a) as being unpatentable over Wirz (US 5,479,856) in view of Gross and in further view of Mohr (US 4,427,766). Whether claims 5 and 6 should be rejected under 35 U.S.C. § 103(a) as being unpatentable over Wirz in view of Gorss and Mohr as applied to claims 1 to 4 and 7 to 9, and further in view of Boardman (US 6,824,882).

7. ARGUMENTS

Rejections under 35 U.S.C. §102(b)

Claims 1 to 3

Claims 1 to 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Gross.

Gross discloses substrate provided with a microstructured surface, methods of producing them, and to their use as having dirt repellency proprieties. (Col. 1. lines 5-9).

Claim 1 recites a print substrate-contacting element comprising:

a microstructured carrier having a surface; and

an ink-repellent coating on the surface of the microstructured carrier, the ink-repellent coating including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

Gross does not disclose "a derivative of an amphiphilic organic compound" as in claim 1. As referenced in the Office Action on page 3, Gross discloses "organic compounds that may be used...styrene, acrylic acid, methacrylic acid and derivatives thereof." (Col. 5, line 46-49). These do not describe amphiphilic organic components. Furthermore, even if the groups yielded amphiphilic components, they were only components which undergo structural and functional changes in the condensation reaction. There is no disclosure in Gross that the actual condensate is an amphiphilic organic substance. In addition, the Office Action fails to show the claimed amphiphilic components have "a polar region with an acidic character" as in claim 1. The cited reference in the Office action (Col. 5, lines 13-17) is related to catalyzing the condensation reaction by providing an acidic environment. Gross does not show or teach the amphiphilic organic compound having a polar region with acidic

character. As discussed, Gross fails to disclose all the elements of claim 1. Therefore there is no anticipation under 35 U.S.C. § 102(b).

Withdrawal of the rejection of claim 1 and its dependent claims 2 and 3 is respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 1 to 4 and 7 to 9

Claims 1 to 4 and 7 to 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wirz (US 5,479,856) in view of Gross (US 6,649,266) and further in view of Mohr (US 4,427,766).

Wirz discloses printing units having a respective impression cylinder and four pairs of blanket and plate cylinders respectively. Each blanket cylinder/ plate cylinder pair is associated with an inking unit and with a device for texturing and structuring a printing plate disposed on a plate cylinder. (Col. 5, Lines 25-33).

Gross is discussed above.

Mohr describes a printing plate and states that the form prepared according to Example 26 has similar properties to polyvinylphosphonic acid, but does not disclose the acid in Example 26 and refers to German Patent No. 1,134,093. A copy of the German patent and its US equivalent (U.S. Patent No. 3,276,868) are of record. The phosphonic acid layer referred to by the German patent is an intermediate layer (see claim 1 of U.S. Patent No. 3,276,868) and also only for a printing plate.

Claim 1 recites a print substrate-contacting element comprising:

a microstructured carrier having a surface; and

an ink-repellent coating on the surface of the microstructured carrier, the ink-repellent coating including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

Wirz does not disclose "a microstructured carrier" as claimed. Rather the ink repellant surface is the impression cylinder. Gross does disclose a "microstructured" surface, however there is no motivation to modify Wirz in view of Gross as they are not in related technologies.

Wirz and Gross fail to disclose "derivative of an amphiphilic organic compound having a polar region with acidic character" as claimed. Mohr's reference to the phosphonic

acid in the German patent is an intermediate layer and only for a printing plate. There is no motivation for one of ordinary skill in the art to modify Wirz in view of Mohr. One of ordinary skill in the art would not have used printing plate teachings for the impression cylinder of Wirz, since the impression cylinder of Wirz does not provide any image.

Withdrawal of all of the rejections is respectfully requested.

Claims 5 and 6: Argued Separately

Claims 5 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Wirz in view of Gross and Mohr as applied to claims 1 to 4 and 7 to 9, and further in view of Boardman (US 6,824,882).

Boardman teaches fluorinated phosphonic acids.

Claim 5 recites the print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is substituted in a nonpolar region so as to be both ink-repellent and water-repellent

There is absolutely no teaching in Boardman to make the acid ink-repellant.

Claim 6 recites the print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is fluorinated in a nonpolar region.

Wirz, Gross and Mohr fail to show or teach "fluorinated in a nonpolar region." There would have been no motivation for a person of ordinary skill in the art to modify Wirz in view of Boardman.

Withdrawal of the rejections to claims 5 and 6 for these reasons as well those mentioned above is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

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APPENDIX A:

APPEALING CLAIMS 1 to 9 OF
U.S. APPLICATION SERIAL NO. 10/655,928

Claim 1 (original): A print substrate-contacting element comprising:

a microstructured carrier having a surface; and

an ink-repellent coating on the surface of the microstructured carrier, the ink-repellent coating including a derivative of an amphiphilic organic compound having a polar region with an acidic character.

Claim 2 (original): The print substrate-contacting element as recited in claim 1 wherein the carrier is metallic and has a natively oxidized surface.

Claim 3 (original): The print substrate-contacting element as recited in claim 1 wherein the carrier has at least one substance selected from the group consisting of titanium, zirconium, molybdenum, nickel, copper, aluminum, chromium, iron, silver and gold.

Claim 4 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of an amphiphilic organic compound is a hydroxamic acid derivative or a phosphonic acid derivative.

Claim 5 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is substituted in a nonpolar region so as to be both ink-repellent and water-repellent.

Claim 6 (original): The print substrate-contacting element as recited in claim 1 wherein the derivative of the amphiphilic organic compound is fluorinated in a nonpolar region.

Claim 7 (original): The print substrate-contacting element as recited in claim 1 wherein the print substrate-contacting element is a back-pressure cylinder or a part of a surface thereof.

Claim 8 (original): A print substrate-processing machine comprising at least one print substrate-contacting element as recited in claim 1.

Claim 9 (original): The print substrate processing machine as recited in claim 8 wherein the machine is a printing press.

APPENDIX B

Evidence Appendix under 37 C.F.R. §41.37 (c) (ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

APPENDIX C

Related proceedings appendix under 37 C.F.R. §41.37 (c) (x):

As stated in "2. RELATED APPEALS AND INTERFERENCES" of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.